APPENDIX B
Economic Impact Models

ESTIMATING TOURISM RELATED SPENDING, EMPLOYMENT, AND STATE & LOCAL TAX REVENUES IN UTAH

SUMMARY

Beginning this year, a new analytical methodology is being used to measure the impact of tourism on Utah's economy. In order to place the current description of the impacts for 2006 in historical perspective, this analysis was also applied to the calendar years 2004 and 2005.

An input-output model is a way of describing the economic relationships in a region (in this case the state of Utah) as an aid to understanding and estimating how changes in one industry affect other industries. IMPLAN (IMpact PLanning and ANalysis), developed by Minnesota Implan Group (MIG), is the model used for this study. MIG draws upon numerous sources to populate the IMPLAN database – primarily Federal Government data from the Bureau of Economic Analysis (BEA), Census Bureau, Bureau of Labor Statistics, and other sources. The data represent 509 industrial sectors and the software establishes the relationships that exist among the sectors, making it possible to estimate the impact on the economy of transactions that occur within and between multiple sectors. The IMPLAN model includes household and government consumption which allows us to estimate the effects on employee compensation, employment levels, and tax revenues.

DEFINING THE TRAVEL AND TOURISM INDUSTRY

Tourism is not defined in most data summaries as a unique "industry" for modeling purposes. In fact, traveler and tourist expenditures cut across numerous industrial sectors – transportation, retail, accommodations, food services, etc. For the purposes of this study, we have used the following sectors:

- Air transportation
- Rail transportation
- Water transportation
- Transit and ground passenger transportation
- Scenic and sightseeing transportation and support
- Food and beverage stores
- Health and personal care stores
- Gasoline stations
- Clothing and clothing accessories stores
- General merchandise stores
- Miscellaneous store retailers
- Motion picture and video industries
- Real estate
- Automotive equipment rental and leasing
- Travel arrangement and reservation services
- Performing arts companies
- Spectator sports
- Independent artists, writers, and performers
- Museums, historical sites, zoos, and parks
- Other amusement and recreation industries
- Hotels and motels
- Other accommodations
- Food services and drinking places

Because the proportion of spending in these categories that is attributable to tourists varies, the spending amounts are adjusted by an "intensity factor" that varies from 0.05 (*e.g.,* retail) to 1.0 (*e.g.,* hotels and motels).

ESTIMATING TRAVEL AND TOURISM RELATED SPENDING, EMPLOYMENT, AND STATE & LOCAL TAX REVENUES

The IMPLAN database is updated annually, but because of delays in reporting and processing, the current database represents calendar year 2004. For the years 2005 and 2006 the figures in the database are adjusted using the GDP price deflator published by the Bureau of Economic Analysis (BEA).

Running the model yields estimates of tourist spending, employment related to tourist spending, and state and local tax impact of tourist spending. The model was run using a statewide database. The county shares were calculated proportional to each county's share of Transient Room Tax (TRT) collections for each year in question. TRT is the most readily available measure that is almost totally associated with traveler and tourist activity.

The IMPLAN model estimates state and local taxes as a combined figure. However, the tax impact report does break out the total into categories for Corporate Profits (state), Motor Vehicle Licenses (state), Property Tax (county), Sales Tax (state/county), and Other Taxes and Fees (state). The Census Bureau reports a state/county split of 77% to 23%. This factor was applied to the IMPLAN sales tax figure. These state/local tax categories were summed, yielding a 62/38 split respectively. Each county's share of the state/local calculated by the IMPLAN model is then shared out with 62% allocated as state tax and 38% identified as local tax.

The Transient Room Tax shown in the report is the figure reported by the Utah State Tax Commission as supplemented by data collected by the Utah Office of Tourism.